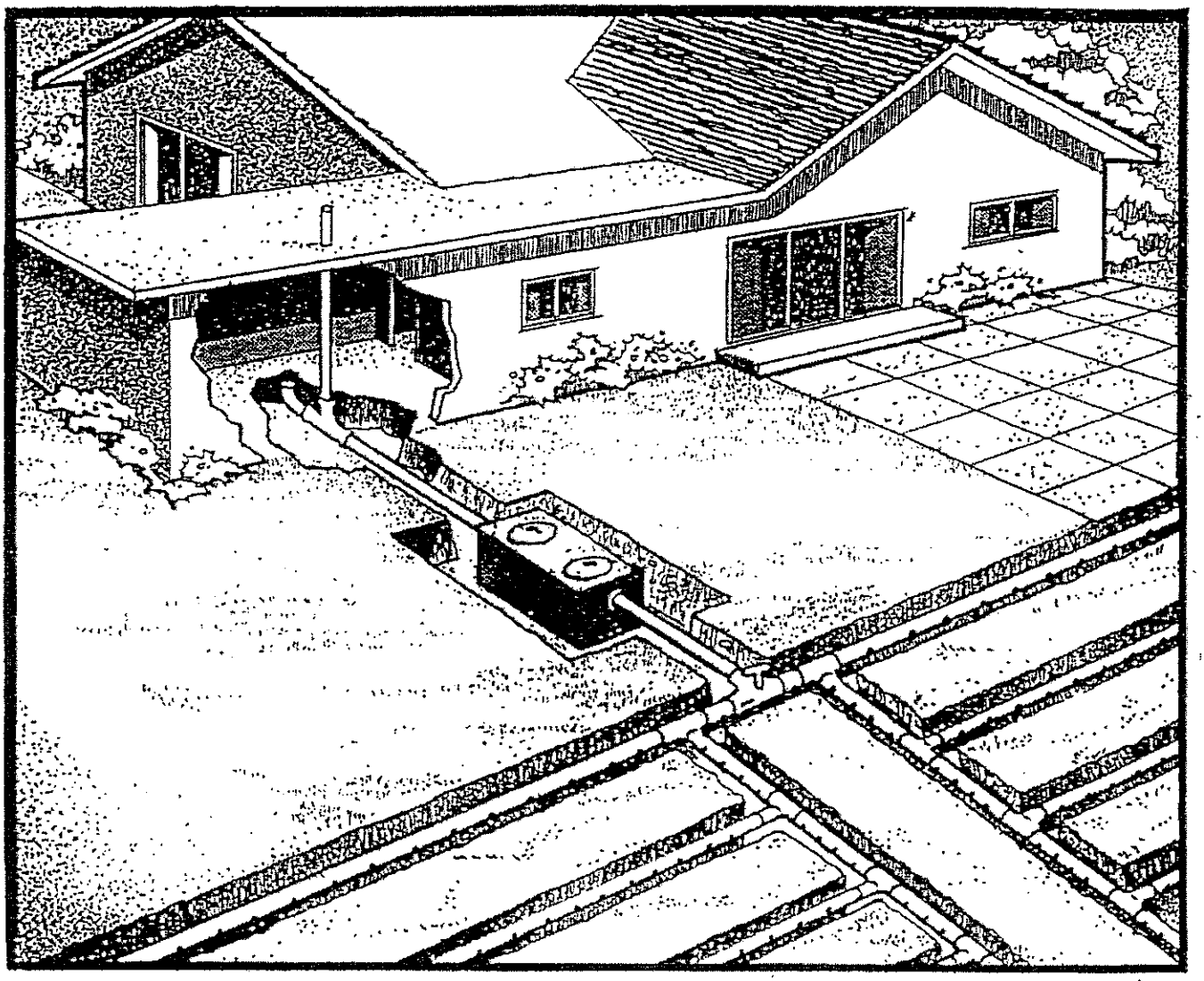
SEPTIC SYSTEM REQUIREMENTS FOR THE TOWN OF LOS ALTOS HILLS

BULLETIN "A"



SANTA CLARA COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH

1555 Berger Dr., Suite 300
San Jose, CA 95112-2716
Phone 408-918-3400
FAX 408-258-5891
Web Site www.EHinfo.org

PURPOSE

This bulletin is compendium of Santa Clara County ordinance and policy provisions related to the design, permitting and installation of individual on-site sewage disposal systems. It is intended to provide the technical guidance for homeowners, designers and installers of on-site sewage disposal systems.

PERMIT REQUIREMENTS

A permit must be obtained from the Department of Environmental Health (DEH) to construct, reconstruct or repair an on-site sewage disposal system. Permits will only be issued in the Town of Los Altos Hills where a sanitary sewer is not available within 200 feet of the building. On-site sewage disposal systems cannot be used if soil conditions, topography, high ground water or other factors indicate that this method of sewage disposal is unsuitable.

To obtain a permit, four sets of the site plan showing the proposed sewage disposal system, and any required supporting documents, must be submitted to DEH for review and approval.

FEES

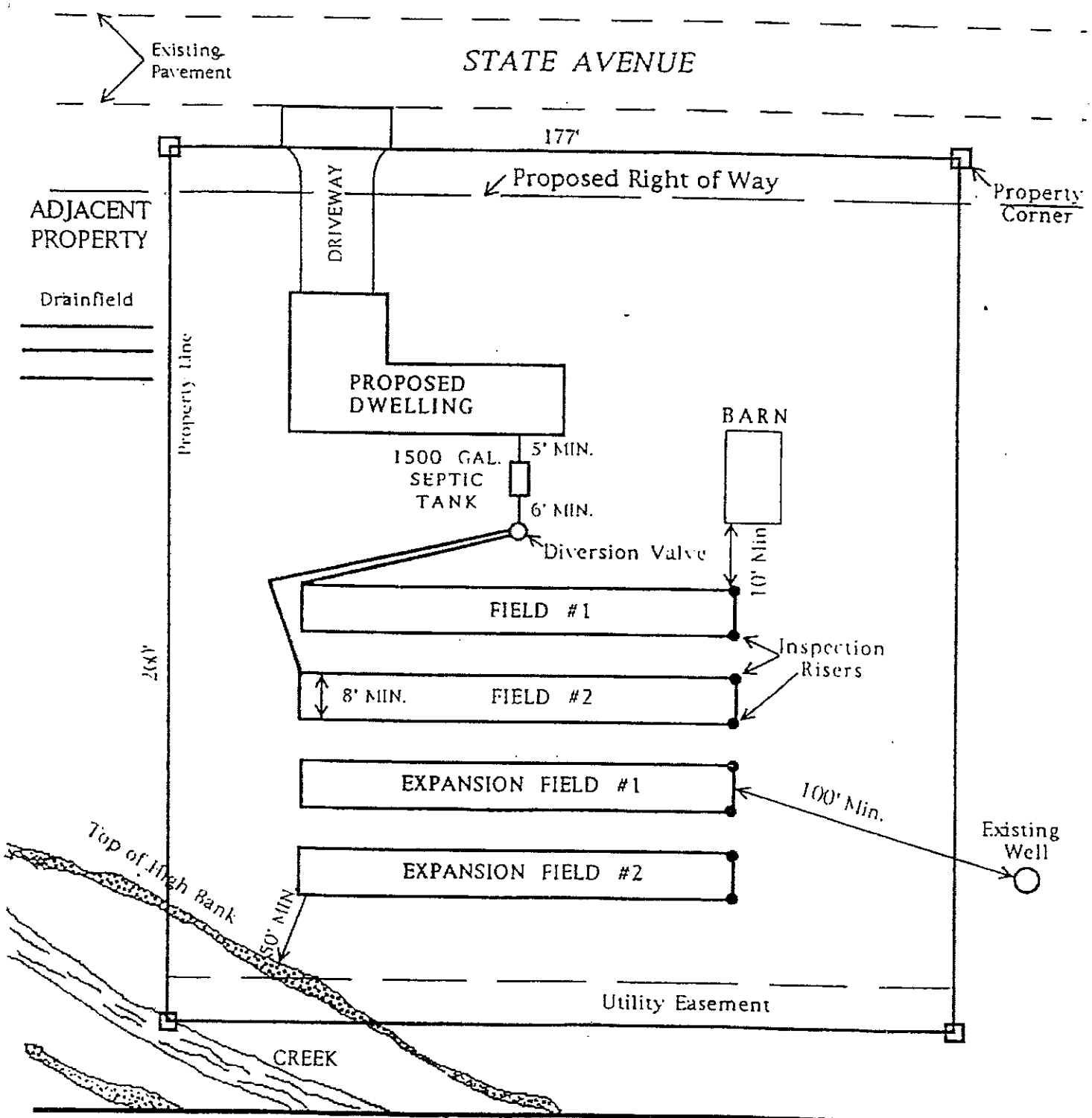
Fees, as prescribed by resolution of Santa Clara County Board of Supervisors, are payable separately to the Department of Environmental Health for services described throughout this bulletin.

SITE PLANS

Site plans must include the following information and details:

1. **Show all proposed and any existing sewage disposal systems drawn accurately to a scale of at least 1 inch = 20 feet. Large parcels must also show the entire site in a larger scale.**
2. **If the slope of the lot is less than 10% indicate direction and percent of slope with an arrow. If the slope exceeds 10% show elevation contour lines at 2 foot intervals.**
3. **Note the assessor's parcel number (APN), site address, Town file number (if applicable), and any subdivision, tract or lot numbers.**
4. **Show the North arrow and scale.**
5. **Show the location of all wells, springs, creeks, drainage swales or water courses on the property or within 100 feet of property lines.**
6. **Show all existing and proposed structures, driveways, culverts, patios, decks, paved areas, swimming pools, large trees, water lines, etc.**
7. **Show all existing and proposed cuts, slopes or embankments over 67%, slides and flood plain boundaries.**
8. Include the name, address and telephone number of the legal owner and/or applicant.
9. Show the name of adjoining property owners.
10. Show the property boundaries and their recorded lengths.
11. Show all recorded easements and right-of-ways and their purpose.
12. Indicate the name of the water company or otherwise indicate the domestic water source.
13. Show all existing or proposed sewage disposal systems within 100 feet of an existing or proposed well.
14. Show the location of all components of the sewage disposal system.

SAMPLE SITE PLAN



DEVELOPMENT REQUIREMENTS

Land use and building permit applications are evaluated for adequate sewage disposal and water supply. Other conditions such as hazardous materials storage or use, illegal dumping or illegal uses may also be evaluated during field investigations. Evaluation/testing of any existing septic systems may also be required to determine condition and adequacy.

Fees are collected separately by the Department of Environmental Health (DEH) for all services.

Site Approval, Subdivision and Use Permits

A site assessment, soil profile and percolation test will be required for sites for which septic systems are proposed to determine feasibility and size of a system.

An approved water supply is required as a condition of approval for building sites, subdivisions and most use permits. Proof of adequate potable domestic water for subdivisions may be required prior to deeming the application complete if water availability is unknown or poor. Otherwise, proof of adequate domestic water supply is required prior to map recordation. Individual wells or water systems with up to 14 connections are regulated by DEH. The California Department of Health Services regulates all other water systems.

Building Additions and Accessory Structures

Minor building additions (up to 500 square feet)[3] and accessory structures (barns, detached garages, swimming pools, cabanas, etc.) are evaluated on an individual basis. The construction of an additional septic tank/drainfield may be required if the existing system is undersized, shows evidence of failure, consists of a cesspool, or if there is an intensification of use (usually an addition of bedrooms or family room).

Major building additions (over 500 square fee)[3] require that the septic system meet current standards. Current standards required at least a 1,500-gallon septic tank and a dual drainfield system and expansion area sized and sited to current code.

Building additions/accessory structures will not be approved where it would result in a reduction in the size of the drainfield or any required drainfield reserve area.

Secondary Dwellings

Each detached secondary dwelling must be served by a separate septic system that conforms to current code.

Septic System Sizing Criteria

Primarily the number of bedrooms and the ability of the soil to absorb water determine septic system sizing. Soil may be unsuitable for a septic system if it absorbs water too fast, or too slowly. Rooms that are designated other than bedrooms (e.g., bonus rooms, libraries, offices, etc.) may be counted as bedrooms if they are configured as such and have convenient access to full bathroom facilities.

Maximum Slope

The maximum slope on which a drainfield may be installed is 50%.

Pump Systems

Septic systems that require pumping of the effluent from the septic tank to the drainfield are generally allowed only where it is not feasible to develop a site with a gravity flow system. Pump systems must be engineered per the DEH Effluent Pump System Guidelines.

[3] Cumulative square footage since March 2, 1984.

SITE EVALUATION

In order to determine if an on-site sewage disposal system can be utilized, the Department of Environmental Health (DEH) must evaluate each site. The site evaluation consists of a site assessment, a soil profile trench and a percolation test.

Fees are collected separately by the Department of Environmental Health for all services.

Site Assessment A preliminary review of the physical features of the site, including slope of the land, proximity to cuts, steep slopes, drainage ways, wells, and other features that may limit the available drainfield area. Prior to conducting the assessment, an application/authorization for access form must be signed and a site plan must be provided to DEH. Following the assessment, a written report will be provided by DEH. The report will briefly describe any limitations to development of the site using an on-site sewage disposal system.

Soil Profile A soil profile typically consists of a backhoe excavation to at least 11 feet deep. DEH must be present during the excavation. The purpose of the profile is to 1) determine the suitability of the soils for on-site sewage disposal, 2) verify that there will be adequate separation between the bottom of the drainfield and bedrock, ground water or impermeable limiting soil strata. If there are site characteristics or historical documentation that a shallow ground water table is likely to occur during the rainy season a wet weather ground water investigation will be required. The investigation must be conducted during normal wet weather ground water conditions in accordance with DEH policy.

Percolation Test A percolation test is conducted to determine the size of the drainfield that will be required. DEH must be advised of the day and time of the test so that a portion of the test may be monitored.

Geotechnical Report (Slope >20%) If slopes in the drainfield area exceed 20%, a geotechnical report and complete engineered installation plan will be required. The report and plan must be prepared by a State Registered Civil Engineer, State Certified Engineering Geologist or a State Registered Environmental Health Specialist.

MAINTENANCE AND OPERATIONAL SUGGESTIONS

1. The solids that accumulate in the septic tank should be removed by pumping every 3-5 years to prevent their entering and clogging the drainfield. Licensed septic tank pumpers may be located in the phone book yellow pages or a list maybe obtained from the Department of Environmental Health.
2. The diversion valve setting should be changed annually to extend the life of the septic system
3. Garbage disposals should be used sparingly or not at all. Their use contributes to solids accumulation in the septic tank and results in the need for more frequent pumping.
4. The use of water softeners is not recommended in clayey soils. Sodium from these units may alter the soil chemistry and result in reduced drainfield efficiency, and possible failure. A system utilizing off-site regeneration is recommended. Any on-site regeneration water should drain to a subsurface rock filled sump.
5. Swimming pools or spas must not be drained or backwashed into the septic system. After ensuring water is free of disinfectants such as chlorine, algaecides or filter aids, such as diatomaceous earth water may be used for on-site irrigation. Cartridge filters should be used to avoid the necessity for backwashing. Filters can be rinsed clean in a laundry or janitorial sink.
6. Avoid planting trees in the drainfield or close to the septic tank. Their roots may invade the drainfield or septic tank and cause blockage of the system.

SITING REQUIREMENTS

Maximum Slope	Drainfields will not be approved on slopes that exceed 50%. Drainfields will only be approved on slopes over 20% with additional investigation (see Site Eveluation section).
Fill	Drainfields must be placed in native soil and no more than 1 foot of fill may be placed over the native grade.
Septic Tank & Diversion Valve	The tank and diversion valve must be located to be easily accessible for maintenance.
Depth of Soil	There must be at least 3 feet of dry permeable soil (no ground water, open fractured rock or impermeable soils) beneath the drainfield on sites with moderate percolation rates. Very fast percolation rates may require greater depth of soil beneath the drainlines.
Site Drainage	On-site drainage must be designed to discharge storm water below the drainfield.
Percolation Rate	Soil percolation rates must be between 1 – 120 minutes per inch.

MINIMUM SETBACKS (In Feet)

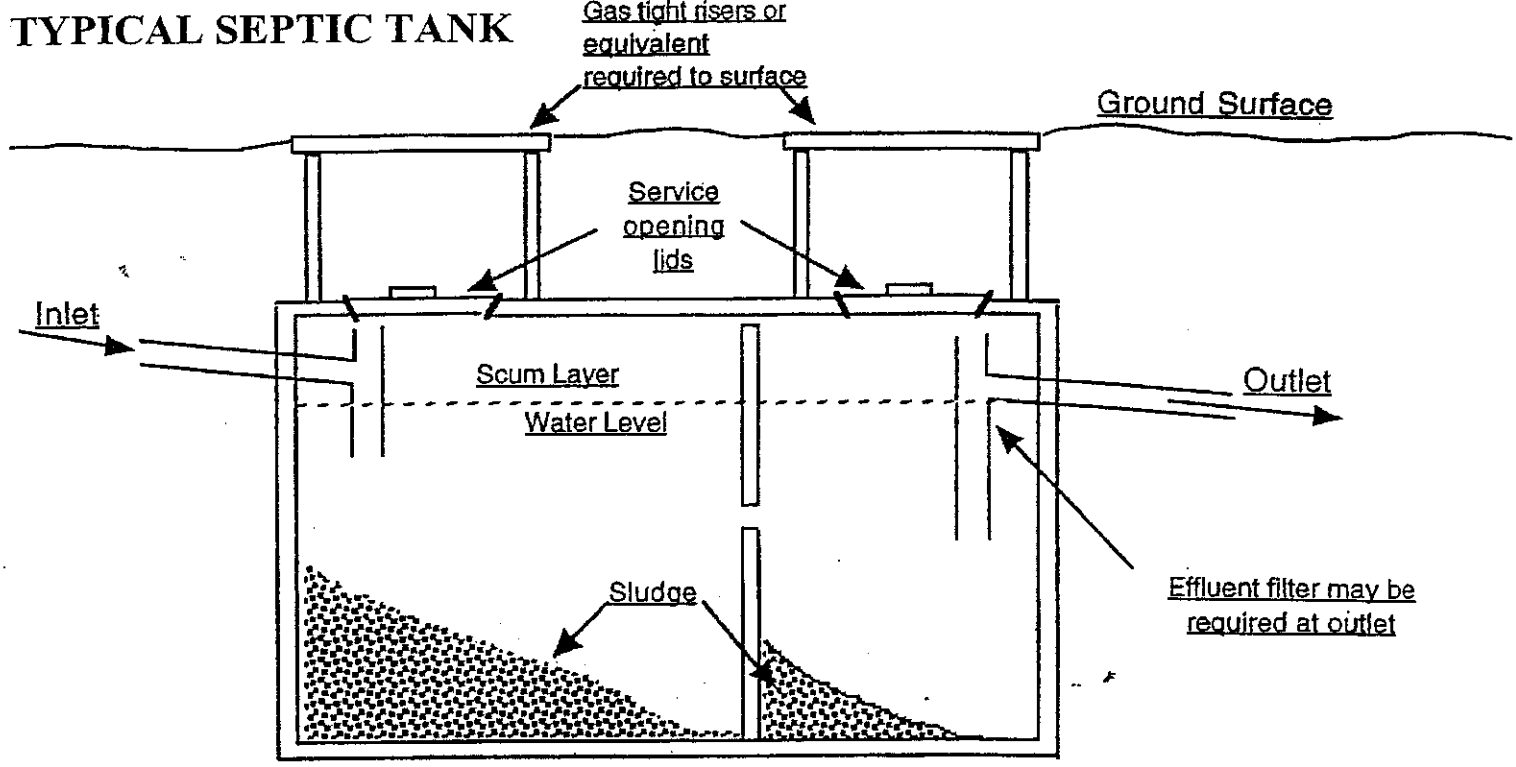
Measured From	To Septic Tank	To Leachfield
Foundation	5	10
Property Line[1], Swimming Pool, Domestic Water Line	10	10
Septic Tank	NA	6
Diversion valve	Max. 10 Ft. Reccomended	NA
Top of Cut Bank, Steep Slope (over 67%), Drainage Swale, Watercourse	50	50
Well	100	100
Reservoir	200	200
Easment or Right of Way	NA	5
Paved Surfaces	NA	5
Trees Over 18 Inches Diameter	NA	Minimum 15 Feet Reccomended

[1]No part of a septic system may cross a property line.

SEPTIC SYSTEM INSTALLATION REQUIREMENTS

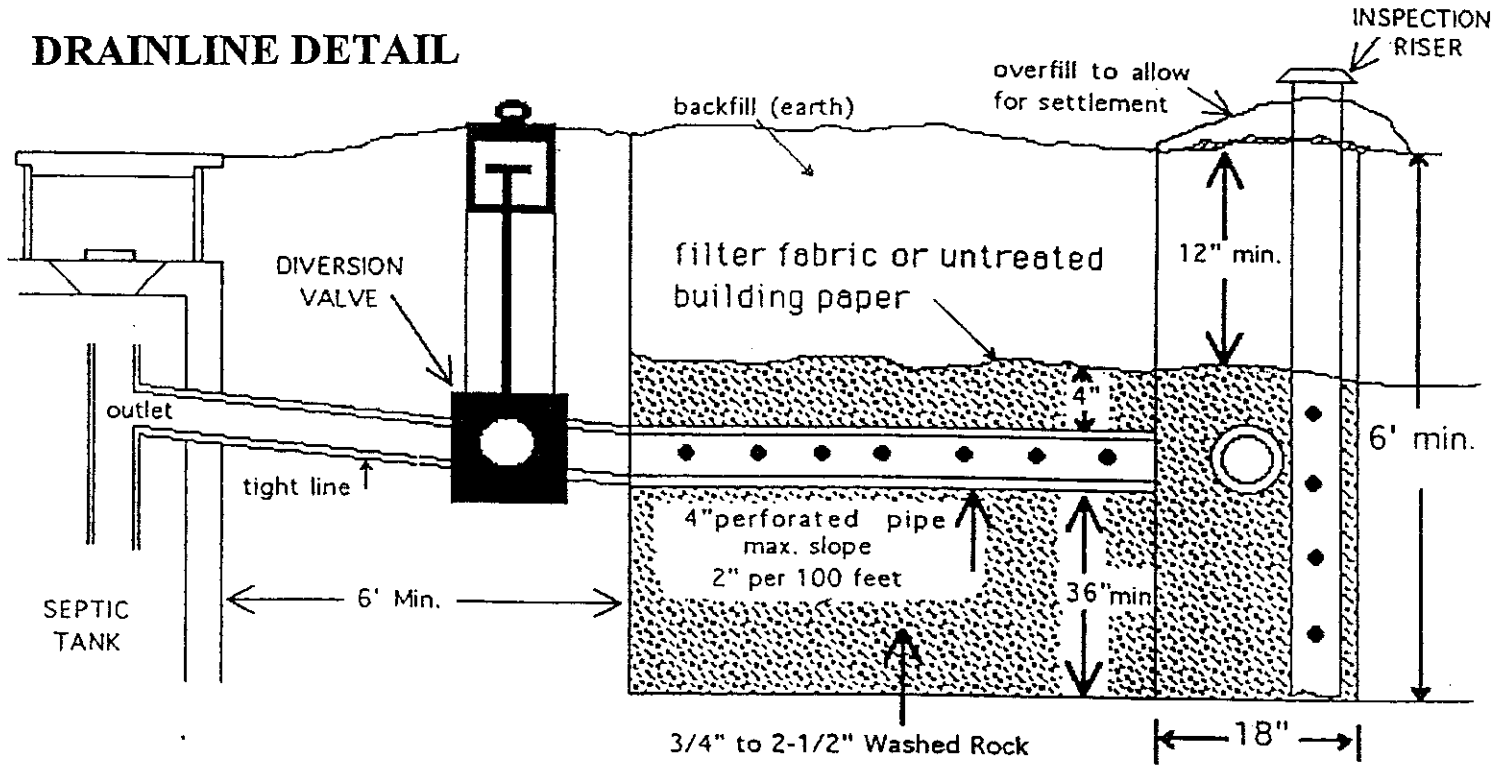
1. The approved septic system/site plan, stamped by the Department of Environmental Health (DEH) must be available on the job site.
2. The contractor must hold a class A, C-42 or C-36 contractor's license from the Contractor's State License Board of the State of California, and be registerd with DEH.
3. DEH must be notified at least 24 hours prior to starting work.
4. Trenches must not be excavated when the soil is so wet that soil compaction or smearing of trench walls occurs. Compaction and smearing are problematic in clayey sois and can cause reduced drainfield efficiency.
5. Septic system installation or repair work is prohibited between November 1 and April 1. Emergency repairs may be allowed with approval of an erosion control plan by the Town of Los Altos Hills.
6. No part of the septic tank or drainfield may be covered without approval from DEH.

TYPICAL SEPTIC TANK



Concrete tanks must be used, where possible. Alternative materials are approved on a site specific basis. The Department of Environmental Health (DEH)maintains a list of approved septic tanks.

DRAINLINE DETAIL

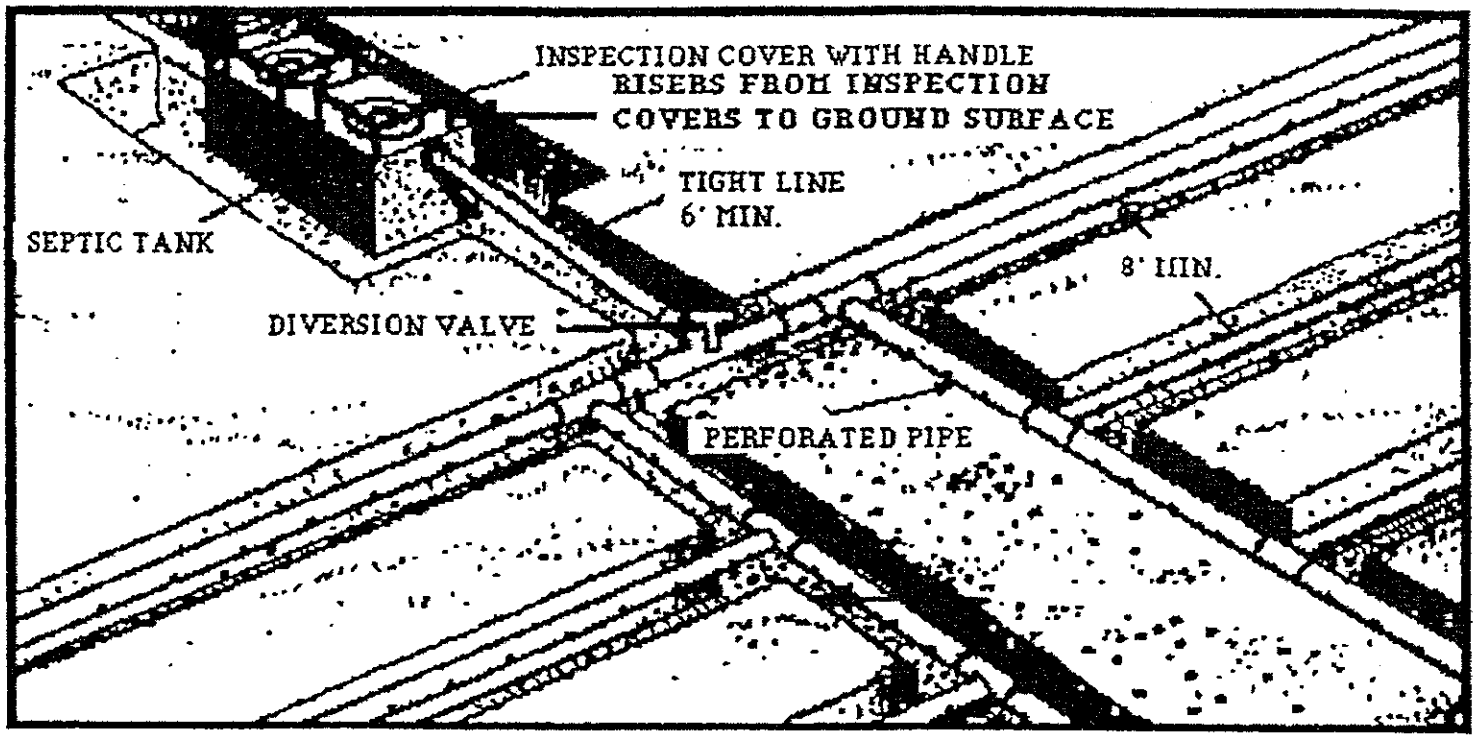


Two drainfields, each 50% of the total size required shall be installed and interconnected with an approved diversion valve. DEH maintains a list of approved diversion valves. An additional reserve area must be provided to allow for at least 100% future expansion of the disposal field.

Drainline pipes must be of approved, perforated pipe at least 4 inches in diameter. The tightline from the septic tank to the diversion valve must be ABS or schedule 40 PVC joined with glue, cement or elastomeric seal to be water tight.

The drainline trench bottom must be level, at least 18 inches wide, with 36 inches of rock beneath the drainpipe and must be no deeper than 8 feet.

DRAINFIELD SYSTEM ON LEVEL LAND



DRAINFIELD SYSTEM ON HILLSIDE OR SOPING LAND